

REMARKS

The Examiner has rejected claims 1-11 as being unpatentable over JP 7-330959 ('959) in view of JP 07292161 ('161). This rejection is respectfully traversed. JP '959 merely discloses a raw material rubber consisting of a coupling-modified solution-polymerization styrene-butadiene copolymer rubber alone, or consisting of 60% by weight of the copolymer rubber and the remainder being other diene-based rubber components. Thus, JP '959 merely teaches that the amount of the modified copolymer rubber is 60 to 100% by weight based on the weight of the raw material rubber, and does not provide any information that teaches or suggests the modification ratio of the copolymer rubber.

The coupling-modified-solution polymerization styrene-butadiene copolymer rubber refers to a mere product obtained by subjecting a solution-polymerization styrene-butadiene copolymer rubber to a coupling reaction, which does not necessarily have a coupling modification ratio of 100%.

Thus, JP '959 does not disclose a polymer containing a modified component in an amount exceeding 60% by weight. Even if the coupling-modified solution-polymerization styrene-butadiene copolymer rubber was used alone, the content of the modified component is not higher than 60% by weight, and if other (non-modified) diene-based rubbers are used in combination, the modified component is further less than 60% by weight.

As described above, JP '959 merely discloses the use of an amount of a modified copolymer rubber (having an unknown modification ratio) of 60% by weight or more, and does not teach or suggest any specific content of the modified component contained therein.

JP '959 does not disclose the use of monomers and solvents which have been treated by an organic metal compound to reduce the impurities, nor does it disclose that the polymerization temperature should be controlled.

The prior art, '161, does not add anything concerning the deficiencies of the primary reference. Specifically, prior art '161 makes no mention of any diene rubbery polymer containing a modified component in an amount exceeding 60 wt.% which is a key requirement of the present invention. Nowhere in '161 does it disclose any modified component in an amount exceeding 60 wt.%. While the '161 patent discusses the use of a silica filler, extension oil and a vulcanizing agent, nowhere does it suggest a modified component in an amount exceeding 60 wt.%. In fact, in paragraph [0023] '161 suggests a molecular reaction of 10 to 60% of the weight and states that it is more desirable that it is 10 to 40% of the weight. Applicant's invention requires a modified component in an amount exceeding 60 wt.%.

With respect to claim 11, '161 teaches a vulcanization temperature of 160° C whereas Applicants require a temperature of 120° C or less. It is pointed out in the specification Page 32-33 that outside of the 120° C temperature the desired properties are not available and the object of the invention cannot be satisfied.

New claims 24 and 25 set forth limitations discussed on pages 19 and 20 of the specification. These are not disclosed in the prior art references.

The prior art made of record but not relied upon adds nothing to the cited prior art to disclose Applicants' invention. The Examiner makes reference to US 6,482,884 to Schall, as being applicable to the present claims as a 103 rejection, but the Examiner has not rejected the claims over Schall. It is not deemed necessary to respond to Schall until it is cited in a rejection.

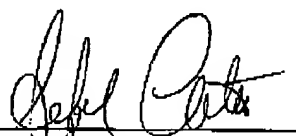
Attached hereto is a Form 1449 providing a machine translation and a partial English translation of the JP '959 reference. Request is made that the Examiner acknowledge receipt.

Early allowance of the claims is respectfully requested.

Respectfully submitted,

Birch, Stewart, Kolasch & Birch

by



Sanford Astor

Attorneys for Applicants

310-209-4400